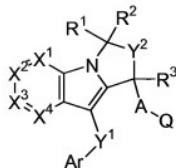


In the Claims

1. (Twice Amended) A compound having the formula I



I

and pharmaceutically acceptable salts and hydrates thereof, wherein:

A is selected from C₁-3alkyl optionally substituted with one to four halogen atoms, O(CH₂)₁₋₂, and S(CH₂)₁₋₂:

Ar is aryl or heteroaryl each optionally substituted with one to four groups independently selected from R⁸ selected from phenyl, 2-, 3-, 4-chlorophenyl, 2-, 3-, 4-bromophenyl, 2-, 3-, 4-fluorophenyl, 3,4-diclorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 2,5-dichlorophenyl, 2,6-dichlorophenyl, 3,5-dichlorophenyl, 3-chloro-4-fluorophenyl, 2-chloro-4-fluorophenyl, 4-chloro-2-fluorophenyl, 2-cyanophenyl, 4-methylphenyl, 4-isopropylphenyl, 4-trifluoromethylphenyl, biphenyl, naphthyl, 3-methoxyphenyl, 3-carboxyphenyl, 2-carboxamidophenyl, 4-methoxyphenyl, 3-phenoxyphenyl, 4-(4-pyridyl)phenyl, 4-methylsulfonylphenyl, 3-dimethylaminophenyl, 5-tetrazolyl, 1-methyl-5-tetrazolyl, 2-methyl-5-tetrazolyl, 2-benzothienyl, 2-benzofuranyl, 2-indolyl, 2-quinolinyl, 7-quinolinyl, 2-benzothiazolyl, 2-benzimidazolyl, 1-benzotriazolyl, 2-furanyl, 3-furanyl, 2-imidazolyl, 5-imidazolyl, 5-isoxazolyl, 4-isoxazolyl, 4-isothiazolyl, 1,2,4-oxadiazol-5-yl, 2-oxazolyl, 4-oxazolyl, 4-pyrazolyl, 5-pyrazolyl, 2-pyridyl, 3-pyridyl, 2-pyrazinyl, 5-pyrimidinyl, 2-pyrrolyl, 4-thiazolyl, 1,2,4-thiadiazol-3-yl, 1,2,5-thiadiazol-4-yl, 1,2,3-thiadiazol-4-yl, 1,2,5-oxadiazol-4-yl, 1,2,3-oxadiazol-4-yl, 1,2,4-triazol-5-yl, 1,2,3-triazol-4-yl, 3-thienyl, 1,2,4-triazol-5-yl, pyrrolopyridine, furo[3,2-b]pyridin-2-yl, thieno[2,3-b]pyridin-2-yl, 5(H)-2-oxo-4-furanyl, 5(H)-2-oxo-5-furanyl, (1H,4H)-5-oxo-1,2,4-triazol-3-yl, 4-oxo-2-benzopyranyl;

Q is COOH,

one of X¹, X², or X³ or X⁴ is nitrogen and the others are independently selected from CH and C-R^a and R^a is selected from 1) C₁-6alkyl optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR^aR^b, C(O)R^a, C(OR^a)R^b, SR^a and OR^a, wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF₃, and COOH, or

2) $S(O)_nC_1\text{-}6\text{alkyl}$, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and $OC(O)R^a$;

X^4 is CH or C-R ξ , where R ξ is selected from 1) $C_1\text{-}6\text{alkyl}$ optionally substituted with OR a or 2) $S(O)_nC_1\text{-}6\text{alkyl}$;

Y 1 is S;

Y 2 is selected from (CRdRe) $_m$ and CRd=CRE;

R 1 is selected from H, CN, OR a , $S(O)_nC_1\text{-}6\text{alkyl}$ and $C_1\text{-}6\text{alkyl}$ optionally substituted with one to six groups independently selected from halogen, OR a and $S(O)_nC_1\text{-}6\text{alkyl}$;

R 2 is selected from H and $C_1\text{-}6\text{alkyl}$ optionally substituted with one to six halogen; or

R 3 is selected from H and $C_1\text{-}6\text{alkyl}$ optionally substituted with one to six groups independently selected from OR a and halogen;

R a and R b are independently selected from H, $C_1\text{-}10\text{alkyl}$, $C_2\text{-}10\text{alkenyl}$, $C_2\text{-}10\text{alkynyl}$, Cy and Cy $C_1\text{-}10\text{alkyl}$, wherein said alkyl, alkenyl, alkynyl and Cy are optionally substituted with one to six substituents independently selected from halogen, amino, carboxy, $C_1\text{-}6\text{alkyl}$, $C_1\text{-}4\text{alkoxy}$, aryl, heteroaryl, aryl $C_1\text{-}4\text{alkyl}$, hydroxy, CF $_3$, $OC(O)C_1\text{-}4\text{alkyl}$, $OC(O)NR^aR^b$, and aryloxy; or

R e is selected from $C_1\text{-}6\text{alkyl}$ optionally substituted with one to six halogen, aryl and heteroaryl, wherein said aryl and heteroaryl are optionally substituted with one to three groups selected from halogen, $OC_1\text{-}6\text{alkyl}$, O halo $C_1\text{-}6\text{alkyl}$, $C_1\text{-}6\text{alkyl}$ and halo $C_1\text{-}6\text{alkyl}$;

R d and R e are independently H, halogen, aryl, heteroaryl, $C_1\text{-}6\text{alkyl}$ or halo $C_1\text{-}6\text{alkyl}$;

R f is selected from H, $C_1\text{-}6\text{alkyl}$, halo $C_1\text{-}6\text{alkyl}$, Cy, $C(O)C_1\text{-}6\text{alkyl}$, $C(O)haloC_1\text{-}6\text{alkyl}$, and $C(O)Cy$;

R ξ is selected from

(1) —halogen,

(2) —CN,

(3) — $C_1\text{-}6\text{alkyl}$ optionally substituted with one to eight groups

independently selected from aryl, heteroaryl, halogen, NR a R b , $C(O)R^a$, $C(OR^a)R^bR^c$, SR a and OR a , wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF $_3$, and COOH;

(4) — $C_2\text{-}6\text{alkenyl}$ optionally substituted with one to six groups

independently selected from halogen and OR a ,

(5) —Cy

(6) — $C(O)R^a$,

(7) — $C(O)OR^a$,

- (8) —CONR^aR^b;
- (9) —OCNR^aR^b;
- (10) —OC₁₋₆alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH and OC(O)R^a;
- (11) —O—Cy;
- (12) —S(O)_nC₁₋₆alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and OC(O)R^a;
- (13) —S(O)_n—Cy;
- (14) —NR^aS(O)_nR^b;
- (15) —NR^aR^b;
- (16) —NR^aC(O)R^b;
- (17) —NR^aC(O)OR^b;
- (18) —NR^aC(O)NR^aR^b;
- (19) —S(O)_nNR^aR^b;
- (20) —NO₂;
- (21) —C₅—cycloalkenyl,

wherein Cy is optionally substituted with one to eight groups independently selected from halogen, C(O)R^a, OR^a, C₁₋₁₀alkyl, aryl, heteroaryl and CF₃;

Rⁱ and R^j are independently selected from hydrogen, C₁₋₁₀alkyl, Cy and Cy-C₁₋₁₀alkyl; or Rⁱ and R^j together with the nitrogen atom to which they are attached form a ring of 5 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R^f;

Cy is selected from heterocyclyl, aryl, and heteroaryl;

m is 1 or 2; and

n is 0, 1 or 2.

2. (Original) A compound of Claim 1 wherein A-Q is CH₂CO₂H.

3. (Cancel)

4. (Previously Canceled)

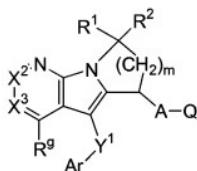
5. (Previously Canceled)

6. (Original) A compound of Claim 1 wherein one of X¹, X² and X³ is nitrogen and the others are CH, and X⁴ is C-S(O)_n-C₁₋₆alkyl or C-C₁₋₆alkyl optionally substituted with OR^a.

7. (Cancel)

8. (Original) A compound of Claim 1 wherein Y² is selected from CH₂ and CH₂CH₂.

9. (Original) A compound of Claim 1 represented by the formula Ia:



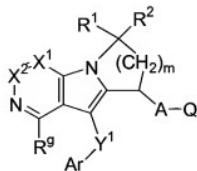
Ia

wherein X² and X³ are independently CH or C-Rg, A, Ar, Q, Y¹, R¹, R², m and Rg are as defined in Claim 1.

10. (Original) A compound of Claim 9 wherein X² and X³ are each CH, R¹ and R² are each H, and A-Q is CH₂CO₂H.

11. (Original) A compound of Claim 9 wherein Y¹-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-₆ alkyl and trifluoromethyl.

12. (Original) A compound of Claim 1 represented by the formula Ib:



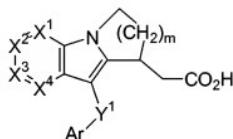
Ib

wherein X¹ and X² are independently CH or C-Rg, A, Ar, Q, Y¹, R¹, R², m and Rg are as defined in Claim 1.

13. (Original) A compound of Claim 12 wherein X¹ and X² are each CH, R¹ and R² are each H, and A-Q is CH₂CO₂H.

14. (Original) A compound of Claim 13 wherein Y¹-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-₆ alkyl and trifluoromethyl.

15. (Original) A compound of Claim 1 represented by the formula Ic:



Ic

wherein one of X¹, X² and X³ is N and the others are each CH, X⁴ is CRg, m is 1 or 2, and Ar, Y¹ and m are as defined in Claim 1.

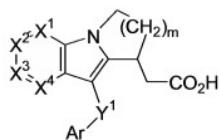
16. (Original) A compound of Claim 15 wherein Ar is phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-₃alkyl and trifluoromethyl.

17. (Previously Canceled)

18. (Original) A compound of Claim 15 wherein X⁴ is selected from C-S(O)_n-C₁-₆alkyl and C-C₁-₆alkyl optionally substituted with OR^a.

19. (Previously Amended) A compound of Claim 15 wherein Y¹-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C₁-₆alkyl and trifluoromethyl; X¹ and X² are each CH, X³ is N, m is 1 or 2, and X⁴ is C-SO₂C₁-₆alkyl or C-C₁-₆alkyl.

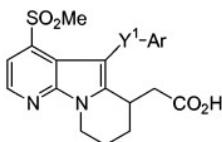
20. (Previously Amended) A compound of Claim 1 selected from:



X1	X2	X3	X4	Ar	Y1	m
N	CH	CH	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	CH	CH	C(SCH ₃)	4-Cl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	3,4-diCl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	4-Br-Ph	S	2
CH	CH	N	C(SO ₂ CH ₃)	3,4-diCl-Ph	S	1
CH	CH	N	C(SO ₂ CH ₃)	3,4-diCl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	4-CF ₃ -Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	2-naphthyl	S	2
N	CH	CH	C(SO ₂ CH ₃)	2,3-diCl-Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	4-CH ₃ -Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	Ph	S	2
N	CH	CH	C(SO ₂ CH ₃)	2,4-diCl-Ph	S	2
CH	N	CH	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
CH	CH	N	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	C(CH ₃)	CH	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	CH	C(CH ₃)	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
CH	C(CH ₃)	N	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
C(CH ₃)	CH	N	C(SO ₂ CH ₃)	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	4-F-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	4-Br-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	4-F-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	4-Cl-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	2

X1	X2	X3	X4	Ar	Y1	m
CH	CH	N	C(CH(CH ₃) ₂)	4-Br-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH ₃) ₂)	4-F-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	4-Cl-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	4-Br-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	1
CH	CH	N	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	4-F-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	4-Cl-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	4-Br-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH ₃) ₂)	4-F-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	4-Cl-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	2,4-diCl-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	4-Br-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	2-Cl-4-F-Ph	S	2
CH	N	CH	C(CH(CH ₃) ₂)	3,4-diCl-Ph	S	2
N	CH	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	2
N	CH	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH ₃) (CH ₂ CH ₃))	4-Cl-Ph	S	1
N	CH	CH	C(C(CH ₃) ₃)	4-Cl-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	3,4-diCl-Ph	S	2

X1	X2	X3	X4	Ar	Y1	m
N	CH	CH	C(C(CH ₃) ₃)	4-Br-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	4-CF ₃ -Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	2-naphthyl	S	2
N	CH	CH	C(C(CH ₃) ₃)	2,3-diCl-Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	4-CH ₃ -Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	Ph	S	2
N	CH	CH	C(C(CH ₃) ₃)	2,4-diCl-Ph	S	2



Ar	Y1
5-tetrazolyl	S
2-pyrrolyl	S
1,2,4-triazol-3-yl	S
1,2,3-triazol-4-yl	S
5-imidazolyl	S
4-pyrazolyl	S
5-pyrazolyl	S
(1H,4H)-5-oxo-1,2,4-triazol-3-yl	S
4-isothiazolyl	S
1,2,5-thiadiazol-5-yl	S
1,2,5-oxadiazol-5-yl	S
3-furanyl	S
1,2,3-thiadiazol-4-yl	S
1,2,3-oxadiazol-4-yl	S
4-isoxazolyl	S
3-thienyl	S
4-oxazolyl	S
4-thiazolyl	S
(5H)-2-oxo-5-furanyl	S

Ar	Y ¹
(5H)-2-oxo-4-furanyl	S
1,2,4-oxadiazol-5-yl	S
3-pyridyl	S
2-pyrazinyl	S
5-pyrimidinyl	S
2-indolyl	S
2-benzothienyl	S
2-benzofuranyl	S
4-oxo-benzopyran-2-yl	S
2-quinolinyl	S
2-benzimidazolyl	S
2-benzoxazolyl	S
2-benzothiazolyl	S
1-benzotriazolyl	CH ₂ S
thieno[2,3-b]pyridin-2-yl	S

21. (Original) A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutically acceptable carrier.

22. (Withdrawn by the Examiner) The composition of Claim 21 further comprising a second active ingredient selected from an antihistamine, a leukotriene antagonist and a leukotriene biosynthesis inhibitor.

23. (Withdrawn by the Examiner) A method for the treatment of prostaglandin D2 mediated diseases which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

24. (Withdrawn by the Examiner) A method for the treatment of nasal congestion which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

25. (Withdrawn by the Examiner) A method for the treatment of allergic asthma which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

26. (Withdrawn by the Examiner) A method for the treatment of allergic rhinitis which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

27. (Previously Canceled)

28. (Previously Canceled)

29. (Previously Canceled)

30. (Previously Canceled)